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An explanatory sequential investigation of the working alliance as a change process in videoconferencing psychotherapy

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Abstract

Objectives and Design: Debate exists as to patient experience, and the importance, of the working alliance (WA) in videoconferencing psychotherapy (VCP). This study used a two-phase explanatory sequential design to investigate the WA as a change process in VCP.

Methods: Phase I: sessional VCP outcome and WA data were analysed using multilevel modelling ($n = 46$). Phase II: participants ($n = 12$) from Phase I were recruited to semi-structured interviews, analysed using thematic framework analysis.

Results and Conclusions: Results demonstrate: (1) a significant correlation between WA and outcome ($F(1, 15.19) = 25.01$, $p < 0.001$), (2) previous session WA significantly predicted outcome in the next session ($F(1, 355.61) = 4.47$, $p < 0.05$), and (3) previous session outcome significantly predicted next session WA ($F(1, 55.3) = 15.19$, $p < 0.001$), with three core themes explaining patient experience (*engaging with the medium*, *connection with the therapist*, and *working via*

the medium). Results are discussed and future research recommended.

KEYWORDS
change process, videoconferencing psychotherapy, working alliance

1 | INTRODUCTION

The working alliance (WA) is a pan-theoretical concept, defined as a collaboration between client and therapist across three domains: (1) goals (agreed outcomes to work towards), (2) tasks (actions of the client and therapist, which would support the achievement of goals), and (3) bond (the attachment between therapist and client; Bordin, 1979; Horvath & Greenberg, 1989). Defined in this way, WA has been extensively investigated within psychotherapy as a process by which clinical change occurs and found to be related to outcome across multiple meta-analyses (Elliott, 2010; Flückiger et al., 2018; Martin et al., 2000), evincing a consistent moderate relationship between WA and outcome across diagnoses (including anxiety disorders)—with the exception of eating disorders and substance use disorder (Flückiger et al., 2018).

When examining the directionality of this relationship, evidence exists for both a reciprocal influence model between WA and symptom change, such that the relationship between WA and symptom change is bidirectional (Crits-Christoph et al., 2011; Falkenström et al., 2013, 2019; Tasca & Lampard, 2012) and unidirectional relationships in both directions (Strunk et al., 2010; Zilcha-Mano et al., 2014, 2016). However, the inconsistent timing of WA measures in some of these studies makes it hard to draw firm conclusions. Five explicitly report that alliance was measured at each session (Crits-Christoph et al., 2011; Falkenström et al., 2013, 2019; Tasca & Lampard, 2012; Zilcha-Mano et al., 2016), with one measuring alliance only early in treatment (the first four sessions; Strunk et al., 2010), and one periodically throughout (Weeks 2, 4, 8, and 16; Zilcha-Mano et al., 2014). Unfortunately, by not measuring WA at each session, studies risk missing out on accurately measuring the influence of WA on the outcome. Crits-Christoph et al. (2011) argue that a minimum of four measures of WA are needed to dependably measure the construct, though this seems to negate the fact that, as the WA is an inter-personal construct, it is open to moment-to-moment change governed by the interaction between therapist and client. In this sense, it is acknowledged that even sessional ratings can potentially miss important intra-sessional changes.

Additionally, much of this study has been conducted within traditional face-to-face psychotherapy, with less attention paid to alternative delivery methods. Flückiger et al. (2018) offered a separate analysis of remotely delivered treatments and found a moderate association between alliance and outcome, with an effect size of $r = 0.275$. This finding is consistent Probst et al. (2019), who meta-analysed the WA–outcome relationship internet-based interventions and also found a moderate association ($r = 0.252$). However, these results must be interpreted with caution due to the grouping of several intervention mediums (internet, e-mail, videoconferencing, and telephone), which could each uniquely impact WA.

Although the relative paucity of evidence for a link between WA and outcome in remote psychotherapy, remote delivery of psychotherapy is growing in popularity and evidence base (Hollis et al., 2015). In the United Kingdom, the National Health Service (NHS) has recommended that video consultations be part of standard primary care within 5 years (NHS, 2019). Remotely delivered psychotherapy potentially has advantages over face-to-face psychotherapy. It seemingly overcomes several regularly cited barriers to treatment, such as the need for transport (Harvey & Gumport, 2015) and perceived stigma from others (Bischoff et al., 2004; Clement et al., 2015; Sirey et al., 2001). Indeed, 98% of internet users are consumers of at least one form of social media (Global Web Index, 2017), so the notion of connecting with people remotely is nothing new and the delivery of psychotherapy through this medium seems culturally appropriate.

One example of remotely delivered psychotherapy is videoconferencing psychotherapy (VCP): the delivery of psychotherapy via secure video link. The use of VCP has substantially increased since the onset of the COVID-19 pandemic (Wind et al., 2020), which highlights a need to understand the potentially discrete processes in VCP. In light of COVID-19, it has also been hypothesised the number of individuals seeking support for mental health problems, particularly health anxiety will increase (Asmundson & Taylor, 2020; Jungmann & Witthöft, 2020).

The VCP delivery method is shown to be effective for symptom reduction across numerous common mental health difficulties (e.g., post-traumatic stress disorder; Morland et al., 2015). It has also shown non-inferiority of outcome compared to face-to-face delivery in meta-analysis (Norwood et al., 2018). However, debate exists around the WA in VCP. Conventional wisdom has suggested a better WA could be facilitated face-to-face, due to the reduced interpersonal richness of communication in VCP (Bee et al., 2008). Furthermore, psychologists have been reluctant to endorse VCP as a standalone treatment (Mora et al., 2008), and therapists have also shown an overall trend of rating early VCP sessions lower for WA compared to clients (Simpson & Reid, 2014).

In a study specifically examining the WA in VCP, psychologists were found to rate VCP sessions lower for WA than those delivered face-to-face, despite the actual sessions being identical (Rees & Stone, 2005). In the referenced study, a fictional therapy session was recorded (with verbatim scripts) in both a face-to-face and VCP format. The recordings were checked by an "independent psychologist" for equivalency of conditions and then rated by participants (30 clinical psychologists) for WA using the Penn Helping Alliance Rating Scale.

Despite therapists' concerns, VCP has high acceptability from clients' perspective (Frueh et al., 2005; Simpson et al., 2005) and client reported WA in VCP has been found to be comparable to WA in face-to-face treatments (e.g., Germain et al., 2010; Stefan & David, 2013). However, most evaluations of WA in VCP lack external validity, in that the VCP condition was conducted in separate rooms of a typical treatment setting as opposed to the client's home or place of residence. Whilst this is desirable for controlling as many variables as possible, it makes it difficult to conclude anything convincing in terms of the clinical benefit of VCP as many of the perceived benefits are lost.

The apparent disparity between client and clinician views of VCP can perhaps be explained by the concept of *presence*—the subjective experience of individuals not noticing the mediated nature of their interaction (Lee, 2004). It has been proposed that *presence* in VCP can help facilitate a strong WA (Bouchard et al., 2000), with 20% of the variance in the therapeutic bond being accounted for by client reported *presence* in one study (Bouchard et al., 2007). This may explain Rees and Stone's (2005) findings, as psychologists were observers in this study, and therefore less likely to become immersed in the experience. Moreover, therapists would be less likely to experience *presence* in VCP as it has been reasoned that to fully experience the phenomenon, the interaction needs to feel unmediated (Lee, 2004). Whilst this may be possible for a client (communicating with a visual image in much the same way they would talk to a person face-to-face), it would likely not be for a therapist (with necessitated attention beyond the interaction [managing the VCP platform to perform such tasks as share resources] acting as sporadic reminders of medium).

Although *presence* potentially fits as an explanation for the disparity of views between clinicians and clients, it is impossible to draw firm conclusions due to the lack of empirical research regarding the client experience of VCP. Therefore, research focused on the client's experience of VCP would gain a better understanding of its influence on WA.

WA has been a reliable predictor of outcome in face-to-face psychotherapy, but the phenomenon is relatively under-researched in the growing area of VCP. From the evidence presented, it appears that forming a successful WA in VCP is possible, though the process of this alliance remains unclear, as does its predictive validity for outcome in VCP. The present study, reporting data from participants receiving VCP for health anxiety, had two primary aims: (1) to investigate WA as a potential change process in VCP, and (2) to gain an experiential understanding of WA in VCP from the clients' perspective. To adequately meet this first aim, the inverse relationship (outcome impacting WA) must also be examined so as to not falsely represent the WA–outcome relationship.

It was hypothesised that the WA would have a reciprocal relationship to outcome comparable to that in the face-to-face literature, though this could not be stated with confidence given the limited knowledge of this relationship within the specific (and potentially confounding) context of VCP. No hypothesis was made as to the experiential nature of WA from clients' perspectives. This was an attempt to mitigate any confirmation bias in

qualitative analysis. The qualitative component of the study aimed to use inductive approaches to understand personal experiences of WA in the emerging area of VCP.

2 | METHOD

2.1 | Setting

Patient data came from a single-blind, patient-level, multicentre randomized controlled trial (RCT) investigating the clinical and economic outcomes of delivering remote cognitive behavioral therapy (CBT) for health anxiety (Morriss et al., 2019). A total of 156 patients were recruited from primary and secondary care settings in the United Kingdom. All were adults having received two or more unscheduled/urgent healthcare consultations in the 12 months prior and scored ≥18 on the Short Health Anxiety Inventory (SHAI). SHAI measures were collected at 3-, 6-, 9- and 12-month follow-up as the primary outcome.

Participants within the trial were randomly allocated to one of two arms: (1) remote CBT intervention (where they could choose treatment by either telephone or VCP); or (2) treatment as usual, wherein participants were offered no intervention from the trial but were free to seek help as they saw fit. This study reports a secondary data analysis for data from all 46 participants who received VCP as part of the Morriss et al. (2019) RCT. Ethics approval was granted from the National Research Ethics Service, London-Riverside Committee (reference 14/LO/1102).

2.2 | Design

An explanatory sequential design was used (Fetters et al., 2013), wherein the quantitative aspect of the study (Phase I; multilevel modelling [MLM] of quantitative data) precedes and informs the qualitative analysis (Phase II; semi-structured participant interviews). In line with this study design, the study took place in two phases.

The 46 participants used in Phase I met the following eligibility criteria: (1) received VCP CBT as part of the source RCT; (2) attended two or more VCP sessions; (3) completed outcome measures for at least two appointments.

For Phase II, a further criterion was applied: participants were excluded from the interview if they were currently receiving therapeutic support or had sought further therapeutic support other than that offered in the RCT since its completion. This was due to the potential for any subsequent intervention to inhibit accurate recall of the VCP experience.

2.3 | Participants

Forty-six participants were included in Phase I analysis, having been randomised to remote treatment in the parent RCT (Morriss et al., 2019) and received VCP meeting the stated criteria (see Table 1 for demographic information).

Twelve participants were included in Phase II, initially identified using extreme case sampling (Palinkas et al., 2016), such that those who had the greatest and least improvement in scores on the SHAI (Salkovskis et al., 2002) at 3-month follow-up were targeted for recruitment. Scores on the SHAI were used to identify participants, as the parent study (Morriss et al., 2019) was a trial for the remote treatment of health anxiety; therefore, change on the SHAI in this case acted as a proxy for the effectiveness of the therapy. Top- and bottom-ranking participants were recruited at a 1:1 ratio, until an adequate number of participants had been obtained, based on saturation estimates (Guest et al., 2006; see Table 1 for demographic information). Extreme case sampling aimed to sample a range of perspectives (inclusive of those who seemingly did and did not benefit from the intervention) to inform an expansive understanding of VCP: purposively seeking to learn from those likely to have had the most divergent

TABLE 1 Participant demographics

	Phase I (*n* = 46)	Phase II (*n* = 12)
Age		
Median	27	31.5
Range	19–66	20–50
Sex		
Female, *n* (%)	37 (80.43%)	12 (100%)
Male, *n* (%)	9 (19.57%)	0 (0%)
Occupational status		
Employed, *n* (%)	19 (41.3%)	7 (58.33%)
Student/Training, *n* (%)	21 (45.65%)	4 (33.33%)
Homemaker, *n* (%)	0 (0%)	0 (0%)
Retired, *n* (%)	2 (4.35%)	0 (0%)
Unemployed, *n* (%)	4 (8.7%)	1 (8.33%)
Highest qualification		
First degree or higher, *n* (%)	19 (41.3%)	6 (50%)
A-level or other higher qualification, *n* (%)	22 (47.83%)	5 (41.67%)
O-level/GCE or other qualification, *n* (%)	2 (4.35%)	0 (0%)
No qualifications, *n* (%)	3 (6.52%)	1 (8.33%)
Relationship status		
Married/Partner, *n* (%)	18 (39.13%)	2 (16.67%)
Single, *n* (%)	24 (52.17%)	7 (58.33%)
Divorced/Widowed, *n* (%)	3 (6.53%)	2 (16.67%)
Ethnicity		
White British, *n* (%)	33 (71.74%)	6 (50%)
White Irish, *n* (%)	5 (10.87%)	2 (16.67%)
White—any other white background, *n* (%)	3 (6.53%)	1 (8.33%)
Asian—Pakistani, *n* (%)	1 (2.17%)	1 (8.33%)
Asian—Chinese, *n* (%)	1 (2.17%)	0 (0%)
Black—Caribbean, *n* (%)	1 (2.17%)	1 (8.33%)
Other—any other ethnic group, *n* (%)	2 (4.35%)	1 (8.33%)

Abbreviation: GCE, General Certificate of Education.

experiences (based on their contrasting outcomes). As extreme case sampling was used, this recruitment was not stratified by demographics, resulting in no males being recruited.

2.4 | Procedure

2.4.1 | Phase I

Session-by-session outcome data were collected on self-reported well-being (Outcome Rating Scale [ORS]; Miller et al., 2003) and self-reported WA (Session Rating Scale [SRS]; Duncan et al., 2003). The predictive validity of WA on session-by-session well-being was analysed using MLM for all included participants who received VCP.

2.4.2 | Phase II

All participants approached for the interview were offered the option of having a VCP session recording sent to them via secure email (the session recordings being selected by a random number generator). This was offered as memory aid, since several months (up to a maximum of 13 months) had passed between VCP completion and interview.

Four participants (all female; median age = 23.5, range = 21–32) were initially recruited for the interview (see Appendix 1 for interview schedule), with the interviews being analysed using thematic framework analysis (Gale et al., 2013; Ritchie & Spencer, 1994). This framework was then deductively applied to interviews conducted with a further eight participants (all female, median age = 34.5, range = 20–50). These further interviews were conducted as part of a separate but related research project (Malins et al., 2019); all additional interviews were semi-structured (following a topic guide based on the change interview; Elliott et al., 2001) asking about participants experience of VCP (focusing on helpful and unhelpful aspects of experience) maintaining a closely related focus to this study. Within the 12 interviews used in the present study, all four therapists were represented (see the Supporting Information; Table S1 for each therapist's representation within the data).

2.5 | Therapists and treatment

Four experienced CBT practitioners delivered VCP—up to 15 sessions of CBT following a manualised treatment developed from the Cognitive Behavioural Therapy for Health Anxiety in Medical Patients (CHAMP) study (Tyrer et al., 2014). The number of sessions offered depended on treatment response, with more sessions offered when treatment response was slower. This was a collaborative decision between therapist and client, informed by ROM data and achievement of treatment goals. Attending five or more sessions was considered an adequate treatment dose, using established criteria unless earlier treatment completion was mutually agreed (Tyrer et al., 2014).

Using this criteria, 71% of the total Morriss et al. (2019) sample completed treatment. The mean number of sessions attended by those whose data is used in this study was 10 (*SD* = 3.78).

Sessional recordings were submitted as part of regular supervision, with the Revised Cognitive Therapy Scale (CTS-R; Blackburn et al., 2001) being used to assess therapist competence and treatment integrity.

2.6 | VCP technology

Cisco WebEx was used to deliver VCP securely, including joint sharing and editing of live documents.

2.7 | Measures

2.7.1 | Outcome Rating Scale (ORS)

The ORS is a four-item measure designed to assess areas of well-being found to change with the therapeutic intervention (individual, relational, and social; Miller et al., 2003). Items are rated from 0 to 10 on visual analogue scales, giving an overall range from 0 to 40, with higher scores indicating greater well-being. The ORS has been found to have good reliability (0.87–0.96) and moderate-to-strong concurrent validity with a range of other outcome measures including the Outcome Questionnaire 45 (Lambert et al., 1996), the Depression Anxiety Stress Scale (Lovibond & Lovibond, 1995), the Rosenberg Self-Esteem Scale (Rosenberg, 1965), the General Perceived Self-Efficacy Scale (Schwarzer & Jerusalem, 1995), and the Quality of Life Scale (Campbell & Hemsley, 2009; Flanagan, 1978; Miller et al., 2003).

The ORS was completed by participants at the start of each session of VCP, in view of the therapist, to enable therapeutic conversation about the scores. Given its brevity, it could be completed each session with relative ease and in minimal time. The mean change in pre–post ORS score was 10.5 (*SD* = 9.1), demonstrating variability across the treatment.

2.7.2 | Session Rating Scale (SRS)

The SRS (Duncan et al., 2003) is a four-item measure designed to assess the key dimensions of WA: the bond between client and clinician, the relevance of goals, approach/methods used, and overall alliance. Items are measured and scored in the same way as the ORS. The SRS has been found to have good reliability (0.88) and moderate concurrent validity with both the Working Alliance Inventory (Campbell & Hemsley, 2009; Horvath & Greenberg, 1989) and the Helping Alliance Questionnaire II (Duncan et al., 2003; Luborsky et al., 1996).

The SRS was completed by participants at the end of each session of VCP, in view of the therapist, to enable therapeutic conversation about the scores. Scores, on average, were high across sessions, but did not show ceiling effects—as demonstrated by the wide range in sessional scores and standard deviation of >2 for each of the first five sessions (the minimum requirement for an adequate treatment dose).

2.7.3 | Short Health Anxiety Inventory (SHAI)

The SHAI (Salkovskis et al., 2002) is an 18-item, self-report questionnaire. Each item is scored on a Likert scale ranging from 0 to 3, with a higher score being indicative of greater health anxiety severity. The scale has good discriminative validity, good reliability (0.87; Olatunji et al., 2011), and concurrent validity has been demonstrated by a 0.85 correlation with clinical judgement (Salkovskis et al., 2002).

Within the parent study (Morriss et al., 2019) the SHAI was the primary outcome measure, with measures being taken before treatment, then at 3-, 6-, 9-, and 12-month follow-up. The relative infrequency of SHAI completion meant that it could not be used in the present study as the primary outcome measure. In the current study, SHAI score was used to identify interview participants.

2.8 | Method of analysis

2.8.1 | Phase I: MLM

Quantitative data were secondarily analysed using MLM—with individual participants (Level 2) having numerous sequential outcome measures nested within them over time (Level 1). Using MLM accounted for change within and between participants over time, giving more accurate estimates of change than analysis at a single time point as in regression analysis. Clustering within therapists (Level 3) was not possible due to the small sample of therapists (*N* = 4) and recommendations on sample size estimating a highest-level sample consist of a minimum of 20 (Snijders & Bosker, 2012). However, despite being underpowered to model therapist as level in the models, it is sufficiently powered to model as a categorical variable, thus allowing examination of the interaction effects of therapist on the WA–outcome relationship.

In total, three models were constructed to elucidate the presence and temporal direction of any WA–outcome relationships in VCP. The three models examined (1) the concurrent WA–outcome relationship, (2) previous session WA leading next session outcome, and (3) previous session outcome leading next session WA. All models were created in *SPSS 24* using a first-order autoregressive covariance structure, with ORS and SRS scores being group-mean-centered for each model (in this case, group-mean-centering entailed person-mean-centering, with ORS and

SRS scores centered around each client–participant's mean). Estimations were made via maximum likelihood. An incremental approach to building models was taken, wherein we started with an unconditional model (no predictors) and then added predictors—first as fixed effects before testing whether adding random effects (i.e., allowing predictor–outcome slopes to vary by person) would further improve the model. Whilst adding random slope effects improved Models I and III, Model II was not improved by the addition of this variance parameter (i.e., SRS–ORS relationships did not vary by a person in this lagged model). The focus of the analyses was on modelling slopes (the relationship between SRS and ORS) rather than modelling between-person differences in intercepts.

The effect size was calculated using a pseudo-R^2—a method which estimates the contribution of predictors and random effects in MLM by assessing the change in model deviance and the reduction in unexplained variance at each level (Town et al., 2012). In essence, the effect size for each stage of the model was calculated as

$$\text{Pseudo-}R^2 = 1 - \frac{\text{target model residual variance}}{\text{unconditional model residual variance}}.$$

2.8.2 | Phase II: Thematic framework analysis

Thematic framework analysis was conducted using an adapted seven-step procedure (Gale et al., 2013; Ritchie & Spencer, 1994): (1) transcription, (2) familiarisation, (3) coding, (4) developing a working analytical framework, (5) applying the analytical framework, (6) charting, and (7) interpreting the data. Saliency analysis (Buetow, 2010) was also used to structure the analysis, with a classification given to each code generated (highly important and recurrent, highly important but not recurrent, not highly important but recurrent, or not highly important and not recurrent). Only codes deemed to be either highly important (in terms of their relationship to study aims, assessed by the first author) and recurrent, or highly important but not recurrent, were used in the framework (see Supporting Information; Table S2 for further information regarding the coding process). Coding was initially undertaken by the first author, with reliability checks by the second and fourth authors. At the time of the analysis, the first author was a final year trainee clinical psychologist, with both other coders being qualified clinical psychologists with several years' experience, and independent to the source study and any of the data collected.

3 | RESULTS

3.1 | Phase I: MLM results

3.1.1 | Model I

An initial model was built to compare the concurrent association between client ratings of WA (SRS) and client ratings of therapy outcomes (ORS). A fixed-effects model was built, which found a significant correlation between client reported scores on the ORS and SRS, $F(1, 392.99) = 27.81$, $p < 0.001$. A pseudo-R^2 of 0.1 for the fixed effects model indicated that SRS score explained a 10% reduction in unexplained variance in ORS score.

Random effects of the slope were introduced and a significant correlation remained, $F(1, 15.19) = 25.01$, $p < 0.001$, increasing the pseudo-R^2 to 0.17 (Table 2).

3.1.2 | Model II

Model II used ORS scores as the dependent variable, with client SRS scores from the session immediately prior (SRS-1) and therapist seen added as covariates at Level 2 (not as additional hierarchical levels).

TABLE 2 Parameter estimates for Model I

	Estimate	*SE*	95% CI
Base model			
Fixed effects			
Intercept	0.07	0.38	−0.69, 0.83
SRS	0.89***	0.17	0.56, 1.22
Final model			
Fixed effects			
Intercept	0.08	0.35	−0.62, 0.79
SRS	1.47***	0.29	0.84, 2.09
Variance components			
Slope	1.06***	0.75	0.27, 4.23

Note: The dependent variable is ORS.
Abbreviations: 95% CI, 95% confidence intervals; ORS, Outcome Rating Scale; SE, standard error; SRS, Session Rating Scale.
***$p < 0.001$.

A fixed-effects base model was initially constructed with the ORS as the dependent variable and SRS-1 as the predictor. This model found a significant correlation between ORS and SRS-1, $F(1, 357.69) = 12.64$, $p < 0.001$. Pseudo-R^2 indicated previous session SRS score explained a 6% reduction in unexplained variance in the next session ORS.

Therapist seen was then added in as a Level 2 predictor variable, along with an interaction effect of therapist seen with SRS-1—this increased the pseudo-R^2 to 0.1. See Table 3 for summary of this model.

It was found that SRS-1 significantly predicted outcome ratings in the next session, $F(1, 355.61) = 4.47$, $p < 0.05$, but the therapist seen did not, $F(3, 101.66) = 0.06$, $p = 0.98$. A significant interaction of SRS-1 and therapist was also seen, $F(3, 354.1) = 4.29$, $p < 0.01$. When examining this interaction by looking at the individual therapists, a significant positive relationship between one therapist and SRS-1 was seen—such that one therapist displayed a higher positive association between previous session WA and current sessions outcome. Adding random effects to this model resulted in model non-convergence.

3.1.3 | Model III

Model III used SRS score as the dependent variable, with ORS-1 and therapist seen as covariates at Level 2.

For Model III, a fixed-effects base model was constructed with the SRS as the dependent variable and ORS-1 as the predictor. This model found a significant correlation between SRS and ORS-1, $F(1, 331.17) = 22.7$, $p < 0.001$, with a pseudo-R^2 of 0.12.

Again, the therapist seen was added as a Level 2 predictor variable, along with an interaction effect of therapist seen with ORS-1. It was found that ORS-1 significantly predicted SRS, $F(1, 55.3) = 15.19$, $p < 0.001$, whereas the therapist seen came close to having statistically significant impact on the SRS but did not quite reach significance, $F(3, 85.78) = 2.7$, $p = 0.051$. No significant interaction of ORS-1 and therapist was seen, $F(3, 47.9) = 1.19$, $p = 0.32$, suggesting that the association between previous session outcome and current session WA was not impacted by the therapist the participant was seeing. The introduction of the therapist to the model increased the pseudo-R^2 to 0.14.

TABLE 3 Parameter estimates for Model II

	Estimate	*SE*	95% CI
Base model			
Fixed effects			
Intercept	0.85*	0.36	0.14, 1.57
SRS-1	0.58***	0.16	0.26, 0.9
Final model			
Fixed effects			
Intercept	0.44	1.17	−1.88, 2.77
SRS-1	0.26	0.27	−0.28, 0.8
Therapist 1	0.49	1.25	−2, 2.97
Therapist 2	0.36	1.4	−2.42, 3.15
Therapist 3	0.51	1.54	−2.54, 3.56
Therapist 1 * SRS-1	1.06**	0.38	0.31, 1.81
Therapist 2 * SRS-1	0.08	0.45	−0.81, 0.97
Therapist 3 * SRS-1	−0.62	0.59	−1.77, 0.54

Note: The dependent variable is ORS. Therapist four is not presented in this table as due to the low number of outcome measures completed by participants seeing this therapist an accurate prediction as to their impact on the model cannot be made.

Abbreviations: 95% CI, 95% confidence interval; ORS, Outcome Rating Scale; SE, standard error; SRS, Session Rating Scale.

*$p < 0.05$.

**$p < 0.01$.

***$p < 0.001$.

Random-effects of slope for ORS-1 were also introduced. SRS and ORS-1 showed significant variance in slopes across participants, indicating the level of association between previous session outcome and current session WA varied between participants—this further increased the pseudo-R^2 (0.32). See Table 4 for a summary of the model.

3.2 | Phase II: Thematic framework analysis results

Three synthesised core themes are briefly described in Table 5, before being discussed in more detail below. Table 6 provides information as to each Phase II participants' overall VCP experience, with reference made to their quantitative symptom change and SRS score.

3.2.1 | Engagement with the medium

This theme pertains to how well participants were able to engage with the medium as a piece of technology. Almost half (5/12) of the participants had prior experience of using videoconferencing, which set up different expectations of the process—from a "normal interaction" (Participant four), to feeling it may make conversation awkward and forced (Participant three).

Despite varying expectations, most participants (10/12) reported high levels of engagement with the medium, with half (6/12) explicitly expressing high levels of comfort. One participant, who had negative expectations through previous videoconferencing experience, still expressed comfort with interactions due to feeling less likely to upset the therapist:

TABLE 4 Parameter estimates for Model III

	Coefficient	*SE*	95% CI
Base model			
Fixed effects			
Intercept	0.14	0.09	−0.05, 0.33
ORS-1	0.06***	0.01	0.04, 0.09
Final model			
Fixed effects			
Intercept	0.85	0.25	0.35, 1.35
ORS-1	0.21**	0.08	0.06, 0.36
Therapist 1	−0.72	0.27	−1.25, −0.19
Therapist 2	−0.68	0.3	−1.27, −0.09
Therapist 3	−0.83	0.32	−1.46, −0.19
Therapist 1*SRS-1	−0.15	0.08	−0.31, 0.01
Therapist 2*SRS-1	−0.14	0.09	−0.32, 0.03
Therapist 3*SRS-1	−0.12	0.1	−0.31, 0.08
Variance components			
Slope	0.01***	0.003[a]	0.005[b], 0.02

Note: The dependent variable is SRS. Therapist four is not presented in this table as due to the low number of outcome measures completed by participants seeing this therapist an accurate prediction as to their impact on the model cannot be made.

Abbreviations: 95% CI, 95% confidence interval; ORS, Outcome Rating Scale; SE, standard error; SRS, Session Rating Scale.

[a]*SE* shown to three decimal places so as not to show zero.

[b]95% CI shown to three decimal places so as not to show zero.

**$p < 0.01$.

***$p < 0.001$.

> …I'm sure there's a lot of training that means they don't get too emotional about things but I'd imagine when you hear some stuff it does play on your mind a little bit like if you're worried for your patients…and I think when you're seeing them face to face, I mean, I worried about that a bit more than with someone who'd never actually met me. *(Participant three)*

Adding to the sense of comfort felt by participants was the freedom afforded by VCP. One-third of participants (4/12) commented on VCP being more convenient for them to access, with one participant feeling it was the only way they could have accessed support at the time:

> I think my anxiety levels were completely past a reasonable level, you know, I think they—I couldn't go out, you know, I really struggled even going out into the back garden because I was so anxious… but the sessions with [the therapist], you know, they were just—I accessed them at the right time…. *(Participant 11)*

Environmental freedom and being able to access support in the home was positively commented on by half (6/12) the participants. However, a quarter of participants (3/12) also acknowledged some unique difficulties in accessing support in this way:

> Whenever I video conferenced in my bedroom [the therapist] could see that I'm still definitely very obsessive about being tidy…. *(Participant three)*

TABLE 5 Synthesised core themes developed from the coding framework

Coding framework		
Initial category	**Initial code**	**Synthesised core theme**
Technology	Problems	*Engagement with the medium*
	Expectations & familiarity	Participants mostly expressed high levels of comfort with the medium, yet exceptions to this were noted. This seemed unrelated to previous videoconferencing experience and was something separate from the therapeutic processes.
	Experience	
VCP experience	Freedom	
	Comfort	Levels of engagement with the medium were high but seemed largely unrelated to the therapist.
	Engagement	
	Beliefs and expectations	
Convenience		
Perceived control	Self-presentation	
	Environment	
Therapist characteristics	Demographics	*Connection with the therapist*
	Interpersonal skills	Most participants reported a positive connection with their therapist. This connection seemed to be influenced by the perceived skill and professionalism of the therapist, participant characteristics, and interpersonal factors.
	Credentials, experience, skills, and professionalism	The relationship being experienced as reciprocal seemed to be of particular importance.
Interpersonal factors	Open and honest	
	Shared understanding	
	Expectations & importance	
	Reciprocity & equity	
Personal factors		
Previous therapy	Experience	
	Relationship	
Physical cues	Eye contact, facial cues and tone of voice	*Working through the medium*
	Absence of the body	Participants were largely aware of the medium, which had a varying impact on their therapy experience—some people liking the feeling it created, and others feeling they were in some way missing out on a better experience. Polarised views were put forward regarding the medium's impact on the participant's relationship with their therapist.
	Readability	
Speed of processes		
Distance/closeness	Physical	
	Interpersonal	This seemed unrelated to the participant's actual comfort with the medium in general terms (as discussed in synthesised core theme *Engagement with the medium*) or how they felt about their therapist (as discussed in synthesised core theme *Connection with the therapist*), but was more to do with the mediating impact of videoconferencing on therapeutic processes.

Note: The code *Therapy outcome* was included in the initial framework but was excluded from the interpretation as it was noted to be unrelated to the present studies aims—describing the outcome of therapy from the client's perspective in terms of changes made, but with no link to either the medium or the therapist.

TABLE 6 Phase II participant therapy outcome and VCP experience

	SRS score First session, last session	Extreme case (SHAI change)[a]	VCP experience[b]
Participant one	36.7, 40.0	Negative (+3)	Reacted positively to unique processes allowed through VCP (such as the ability to bring up and edit live documents). Increased autonomy and more relaxed in their own home. Felt it easier to "mislead" the therapist due to the increased comfort felt.
Participant two	35.0, 39.6	Positive (−6)	Increased sense of confidentiality and comfort in own home. More autonomy and comfort in self-presentation. Experienced the medium as "freeing." Had to sit close to the internet router for a better signal.
Participant three	35.9, 40.0	Negative (−4)	Conversation felt awkward and forced due to a perceived need to avoid long pauses. More comfortable sharing personal details due to perceived distance from therapist. Aware of background giving therapist an insight into their lives. Bought a new laptop due to connection difficulties.
Participant four	36.3, 40.0	Negative (+3)	Thought video consultation may be a hindrance, but it felt like a "normal conversation." VCP accessed through their phone. Felt a close connection was established with the therapist.
Participant five	36.3, 35.0	Negative (0)	Initially apprehensive and felt the first few sessions were slow due to their reluctance. Very engaged following this.
Participant six	35.5, 39.0	Negative (−2)	Did not explicitly mention the medium. Felt being given the space in sessions to talk about areas they felt important which were not necessarily on the agenda was key to a positive therapy experience.
Participant seven	40.0, 40.0	Positive (−22)	Reluctant to engage with videoconferencing, and had computer problems, which led to several sessions being conducted over the phone. Would rather have had face-to-face support. Laughing and joking with therapist helped them open up.
Participant eight	38.2, 39.8	Positive (−8)	Felt the medium added a sense of "distance." Associated physical contact with support, so missed this.
Participant nine	31.0, 40.0	Negative (−1)	Liked the freedom to go off topic. Combination of limited body language and more intense facial focus meant the therapist could convey empathy successfully.
Participant 10	27.0, 35.8	Positive (−8)	Disliked the medium but "stuck it out." Felt confined by session agendas. Took a couple of sessions to get used to the medium's functionalities.

TABLE 6 (Continued)

	SRS score First session, last session	Extreme case (SHAI change)[a]	VCP experience[b]
Participant 11	39.5, 40.0	Positive (−6)	Liked the freedom of accessing support in the home as high anxiety made leaving home difficult at the time. Felt more "in control" than with previous therapies.
Participant 12	36.8, 40.0	Positive (−12)	Apprehensive about talking over video initially, but felt it worked well after getting used to it.

Abbreviations: SHAI, Short Health Anxiety Inventory; SRS, Session Rating Scale; VCP, videoconferencing psychotherapy.
[a]Given the majority of clients made quantitative improvements on the SHAI, some "negative" extreme cases may have made marginal gains in their pre–post SHAI score. The number in parentheses represent the pre–post change in SHAI scores.
[b]"VCP experience" refers to a qualitative summary of the participant's feelings towards VCP as expressed through interview.

As well as environmental comfort and freedom, a quarter (3/12) of participants commented on freedom of self-presentation:

> There's that safety you can do whatever you want in your house sort of thing…it just didn't really matter if it was like a purple t-shirt and a bright purple skirt or pink skirt, right, [Laughs] it could clash because it didn't matter. *(Participant two)*

It is also important to note that comfort was not universal, with two participants expressing discomfort using the medium. Despite the expressed discomfort, both "stuck it out" (Participant 10) and were able to have a positive experience overall:

> I mean I'm not great at talking to people over video but [laughs]… I think it worked really well. I mean at first I was quite anxious about it, but you get used to it pretty quickly. *(Participant 12)*

3.2.2 | Connection with the therapist

The connection participants felt with the therapist seemed largely positive, with factors influencing this connection being unrelated to the medium of delivery. Perhaps unsurprisingly, most participants (9/12) talked about experiencing the relationship with their therapist as important to their therapeutic experience.

The perceived skill and professionalism of the therapist was mentioned by most participants (10/12) as an important factor in forging a meaningful connection. It was acknowledged that having the professional acumen and skill to allow participants time to discuss what they wished to talk about, and then bring them back topic, was important:

> So about the last 20 minutes of the session focused on my anxiety and I did notice that he brought me back to that because I was tending to go off on a tangent and starting to, so it was good it refocused me… I felt more accepted to this because we talked about my diet and cholesterol and got it out of my system a little so I felt able to sort of deal with something positive to help me with the whole situation rather than just focus on that one aspect of how I felt. *(Participant nine)*

Underlining the importance of the above point, one participant did feel as though agendas were too rigidly followed, and this hindered connection:

> …he just wanted me to talk about certain things and I actually just wanted him to talk… but clearly he had a schedule for a session and he was trying to stick rigidly, it felt like, to his schedule and listening to it again I think he is almost out of his depth at a couple of points but that was probably just because he's got this structure to the session that he was trying to coax me into. *(Participant 10)*

Most participants (9/12) acknowledged that their personal context impacted the connection they were able to build. This impact could be positive or negative: with one person (Participant 12) acknowledging that a personal bereavement during therapy hindered their ability to engage, whilst another (Participant two) identified a personal characteristic that made it easy for them to talk to people and experience new things.

Regarding the interaction between participant and therapist, being open and honest was mentioned by most participants (10/12) as facilitating a close connection. However, views differed as to how an open and honest relationship was achieved. For most (7/12), having a relationship that felt reciprocal was important:

> …if something wasn't working then you could talk about it, figure out why it wasn't working or try something else and it also didn't feel like someone was dictating to you how you should be fixing your problem. *(Participant two)*

However, one participant (Participant three) made mention of how a "professional distance" facilitated honesty, as the participant perceived that by having a relationship that felt overly familiar, they would feel unable to open up for fear of damaging the relationship.

Also, the key to building a successful relationship with the therapist seemed to be the idea of developing a shared understanding (10/12). How this was achieved varied, with a practical conceptualisation of shared understanding being reported by some—the use of shared action plans (Participant eight), the use of a shared language (Participant one), and a mutually developed relapse management plan (Participant four). Other participants had a more abstract idea of how a shared understanding was experienced, with one participant simply stating '*he sort of explained and listened and I felt understood*' (Participant nine).

Given the important nature of a shared understanding, it is not surprising that when one cannot be developed, connection with the therapist seems to be hindered:

> … he didn't seem to understand how I was feeling and listening to the recording I got irritated again because I can hear him trying to push me in certain directions and I just couldn't do it. *(Participant 10)*

3.2.3 | Working via the medium

This theme pertains to how participants experienced therapeutic processes (including the relationship) as something mediated through videoconferencing. Although previous themes have largely illustrated a positive engagement with the medium and a positive connection with the therapist, something unique happens when the two are combined: in that participants largely appear to have polarised views as to the overall feel of the experience.

Despite most participants experiencing the relationship they had with their therapist as important, a third (4/12) commented negatively about the physical distance between themselves and their therapist:

> When you are with someone through the screen…it makes you feel different. Just to break the glass, to say like that maybe… when I feel very bad I always like to hug the person or to feel the hands of a person, to feel that I am receiving some support. *(Participant eight)*

It is also important to note that not all participants found the physical distance a problem. One participant commented on this in positive terms and felt it was facilitative of conversation:

> But they weren't really in it… Right, so like you still had your private bubble and they're opening a window into your private bubble but no one's ever actually in your private bubble. *(Participant two)*

Conversely, the interpersonal distance (a lack of connection between therapist and participant) that participants experienced does not seem to correlate with a felt physical distance. One-third (4/12) of participants commented on a felt interpersonal distance that was contributed to by the medium. However, none of these participants commented on this in negative terms, with two feeling it helped facilitate the therapy:

> …it was that little bit more distant but then at the same time like, things didn't feel rushed… we did settle into it a lot quicker as well, like getting to the actual discussion a lot quicker than it has been when I've done it face to face… I mean, I guess with it being that more distant there was less small talk…. *(Participant three)*

Whereas the other two mentioned it in neutral terms: acknowledging it was there, but not seeming bothered by it in such a way that it influenced the VCP experience:

> … you just feel like it is you and just the other person just talking, so I didn't feel that, you know, it hindered our conversations even though I initially thought it would, does that make sense, that it actually did work. *(Participant four)*

This seemingly contradicts the fact that some participants felt they were missing out on a better experience by being physically distant from their therapist. This is particularly the case for Participant seven, who expressed both viewpoints (that the physical distance was a hindrance, but the interpersonal distance was a benefit).

The speed of certain processes also appears impacted by the medium. Again, opinions differed. A third of participants (4/12) felt that VCP facilitated quicker engagement, attributed to factors such as feeling more relaxed in their own environment (Participant one), experiencing the medium as "freeing" (Participant two), and feeling obligated to talk (Participant three):

> …in the past I mean I was in a bit of a different place but there'd be like really, really long pauses where it takes me a long time to say anything, that was, I wouldn't really have done that over the video conferencing… It would have been more awkward I think… They might have thought that the video had frozen. *(Participant three)*

However, a quarter of participants (3/12) felt that videoconferencing slowed certain therapeutic processes. For one participant, this was down to an outright reluctance to engage with videoconferencing (Participant seven), which led to several sessions being conducted over the phone; whereas others were happy to engage, but felt that the medium did not facilitate open and honest conversation, at least in the first few sessions:

> …because it was only the second or third session wasn't it and the session didn't go very well because I can, I was still trying to get to grips with the Webex so I don't really count the first session as being much of a session…. *(Participant 10)*

Phase II data potentially demonstrate a unique process when therapy is delivered by videoconferencing. On the whole, participants spoke positively about the connection they formed with their therapists (with a few exceptions) and about their engagement with the medium (expressing feelings of comfort with the medium and the environmental freedom it allowed). However, when participants talked about the two in combination—the connection they felt with their therapist being delivered through the medium—their influence on therapeutic processes seems somewhat polarised. Some felt they were missing out on something which could be better delivered in a more traditional manner, whilst others were very happy with the overall experience.

Whilst we expected that sampling based on extremes of outcome would potentially enable a broader range of perspectives on the VCP process (assuming that outcome and process might be related—such that we could learn about instances where the VCP medium helped or hindered outcome), our results seem to illustrate the independence of VCP experiences and outcome. For example, Participant 7 (greatest improvement over the course of therapy) had negative experiences of VCP and would have preferred face-to-face support; conversely, Participants 1 and 4 (demonstrating the greatest deterioration over the course of therapy) reported largely positive experiences, reflecting comfort with the VCP format (see Table 6).

Similar independence is noted with WA scores, with VCP experience seemingly being independent of alliance rating (see Table 6). For example, Participant 5 (who showed a decrease in SRS scores from first to the last session) described experiencing apprehension in the initial sessions and feeling they were slow, but was more engaged following these. Similarly, Participant 7 recording maximum SRS scores both first and last session despite stating a preference for face-to-face support and experiencing technical difficulties with the medium.

4 | DISCUSSION

This study sought to (1) investigate WA as a potential change process in VCP and (2) gain an experiential understanding of the WA in VCP from client perspectives. Results suggest that WA has a reciprocal relationship with outcome in VCP rather than a unidirectional one. Further to this, two core concepts (*engagement with the medium* and *connection with the therapist*) were identified (from client–participant perspectives), which appear to combinatorially influence therapeutic processes in VCP (*working via the medium*).

At first glance, these results appear to support traditional face-to-face findings (Flückiger et al., 2018; Martin et al., 2000), and more recent findings for other remote treatments (Flückiger et al., 2018; Probst et al., 2019), that WA is associated with outcome. However, the nuances of this relationship are notable. Results demonstrate that previous session WA impacts outcome and vice versa. This point needs emphasising as debate exists in the (face-to-face) literature with regard to the directionality of any relationship between the WA and outcome—with previous studies finding reciprocal relationships (Crits-Christoph et al., 2011; Falkenström et al., 2013, 2019; Tasca & Lampard, 2012), and unidirectional relationships in both directions (Strunk et al., 2010; Zilcha-Mano et al., 2014, 2016).

The present study perhaps has a methodological advantage over many of these studies, in that it used sessional measures of both outcome and WA to investigate this relationship. Some previous studies applied infrequent measures of WA, limiting sensitivity to movement within the construct. That is to say that, as WA is dependent on the interactions between therapist and client, it is open to change at each session—and by not measuring it in each session, studies can potentially miss these changes, which could confound results.

The present results are also worthy of consideration with regard to specific raters of WA. In the face-to-face literature, a moderate association between WA and outcome persists regardless of who rates alliance (client,

therapist, or observer; Flückiger et al., 2018; Martin et al., 2000); whereas, within VCP, pooled alliance ratings from observer, client, and therapist have been found to be lower than pooled face-to-face alliance ratings, despite equivalence of outcome (Norwood et al., 2018). This would seemingly suggest that the WA is less important (in terms of facilitating outcome) in VCP compared to face-to-face delivery. However, when this point is considered alongside the current study's findings, it perhaps needs reconsidering. It seems more likely that client-reported WA is important in determining/facilitating outcome in VCP, but perhaps this is less true for WA reported by observers and therapists.

This new conceptualisation is partly supported by evidence suggesting that therapists typically score early VCP sessions lower for WA when compared to clients (Simpson & Reid, 2014). This warrants further investigation, but it could be that therapist ratings of alliance in VCP are influenced by their negative appraisals of VCP-usability (Rees & Stone, 2005). However, it is possible that therapist ratings of WA were lower than clients for reasons unrelated to the delivery medium of therapy—there is a general tendency for clients to rate the alliance more highly than their therapists (Tryon et al., 2007).

It is also interesting to note the varying effect sizes in the models. Model I demonstrates a comparable concurrent relationship between outcome and alliance as is reported in the face-to-face literature (Flückiger et al., 2018; Martin et al., 2000). The effect sizes for Models II and III, at first glance, appear to suggest that previous session outcome has the greater influence over current session WA (effect sizes of 10% and 32% being found, respectively). However, the effect size discrepancy seems to be adequately explained by random slopes being introduced to Model III, but not to Model II, as the effect sizes without random slopes are much more comparable (10% and 14%). This suggests that, despite a positive overall alliance–outcome link, changes across time can vary greatly from client to client. Therefore, selecting a single assessment time point does not account for this client to client variance over time (as is done in typical regression modelling). To account for this MLM nests multiple assessment time points within each reporting client to give a more accurate assessment of change over time, client to client.

When examining the WA from an experiential perspective, the current study is somewhat divergent from theoretical expectations. Although MLM analysis used a measure of WA consistent with Bordin's (1979) definition (the SRS) these constructs were not necessarily prevalent in participant interviews. Participants talked about the relationship with their therapist more in terms of the bond (shared understanding, reciprocal relationship) and individual factors (such as participant characteristics and therapist skill). Whilst it is acknowledged that this could be a result of the questions asked, it is felt that this is mitigated by the fact that two different sources of interviews were used, and the finding is consistent across the two. The absence of goals and (largely) tasks from participants' discussion of their relationship with their therapist makes particularly interesting reading given that evidence in face-to-face therapy suggests that task and goals (and not bond) are more predictive of outcome, with bond being a response to the outcome (Webb et al., 2011). However, it does need acknowledging that this—participants talking about WA divergent to Bordin's (1979) conceptualisation—is also prevalent in the face-to-face literature (Bedi & Hayes, 2019).

Further to this, the concept of *presence* has been posited as a potential experiential factor in VCP, with implications for the bond experienced between participant and therapist (Bouchard et al., 2007). However, within this study, evidence to support *presence* as an experience encountered by participants was lacking. Indeed, most participants talked about maintaining an awareness of the medium being used, rather than the conversation seeming unmediated.

4.1 | Clinical implications

From the present study, several implications for clinical practice are suggested. First, given a significant therapist interaction was seen in Model II—demonstrating an individual therapist was able to increase the degree of

association between previous session WA and next session outcome—this suggests the WA can be operationalised as a change process by certain therapists in VCP. This demonstrates the potential importance of actively monitoring, and working on, the WA—though the nuances of operationalising the WA require further investigation. This seems particularly important given the significance of therapist effects on the WA in face-to-face therapy (Baldwin et al., 2007). However, it is acknowledged that the ability for therapists to affect WA is limited and other variables, in particular client-related variables, can play a significant role in its effect.

Another clinical implication pertains to therapists' views of the medium. Given that client reported WA has been found to be important for outcome in this study, it seems important for therapists to hold an awareness of their own feelings regarding VCP and ensure that any hesitancy they hold about the medium is not displayed in conversations with the client, which could potentially impact their view of the WA. Although this was not actively monitored or analysed in the current study, it stands to reason that if a hesitancy is shown by the therapist, this could potentially impact the client perceptions of attributes shown to be important for WA building, such as confidence and flexibility (Ackerman & Hilsenroth, 2003).

From the present study, it is not felt to be the case that interpersonal richness, or readability, in conversation was diminished in VCP. It is noted with technology of this type that non-verbal cues are limited, and this was one of the concerns noted by Rees and Stone (2005). However, it was not something that was prevalent in the present study. Despite the nature of the video feed, only two of the interviewed participants commented that this made the therapists harder to read.

This study benefited from external validity in that the VCP was offered wherever participants chose to take it. All participants interviewed chose to access VCP in the home; whilst this may have contributed to an increased sense of comfort for some, it does raise issues with regard to confidentiality. Within face-to-face practice, every reasonable measure is taken to ensure that all conversations had in the therapy room are private and confidential between the parties present. Practically, very little can be done about this in VCP, as therapeutic support can be accessed in an uncontrolled environment. However, it may be thought of as the clinician's responsibility to acknowledge this before therapeutic work commencing, in the same way as a clinician working face-to-face would also talk about the boundaries of confidentiality before support being offered.

Finally, most participants were under 35, with many of those recruited for interviews having experience using videoconferencing. However, prior experience did not seem to be associated with VCP experience (5 of 12 participants recruited for the interview had prior videoconferencing experience, yet 10 of the 12 reported high levels of engagement, with 6 explicitly expressing high levels of comfort), nor did participant age, with the oldest interviewee (50) expressing comfort with the medium despite no previous experience. This suggests age and prior experience do not necessarily influence comfort with VCP. Further, participant concern or stated dislike for the remote medium did not appear to adversely impact WA and outcome.

4.2 | Limitations

Several limitations exist in the present study and must be considered alongside any conclusions to be drawn. The first limitation is the sample of participants. Although adequate for the analysis, 46 is a relatively small sample for MLM. There are also few males (none in Phase II) and the sample is relatively young in age, which makes generalisation difficult—as does the fact that data were obtained from participants seeking support for health anxiety, who received CBT (i.e., findings may not generalise to other presenting concerns or modes of therapy—although alliance–outcome relationships generally demonstrate robustness across presentations and therapies; Flückiger et al., 2018). The limited number of therapists also meant that therapist level effects could not be modelled within the MLM.

With regard to the measures, using the ORS and SRS does introduce the potential for shared method variance—such that it was more likely a relationship between the two would be found when the measure is completed by the same person using the same method. It is also acknowledged that the ORS gives a discrete sessional look at the outcome

which does not necessarily map on to the target for change through the therapy (health anxiety), and so the study does not give an indication of the relationship of the WA to the overall outcome (though this was not a stated aim).

Both the ORS and SRS are also short (4-item) questionnaires and, whilst this was positive in terms of being less burdensome for the client, they may not be in-depth enough to adequately capture the constructs of interest. It is acknowledged that using alternative measures may yield more accuracy in measurement of the desired construct; however, longer sessional measures have also been shown to have lower compliance rates in terms of their sessional completion (Miller et al., 2003). Therefore, in this study, a decision was made to go with the brevity of the SRS and ORS (which is similarly predictive of long-term health and quality of life as the SHAI; Malins et al., 2019) to maximise the chances of regular participant completion, with a small potential trade-off in measurement sensitivity of the desired construct.

The ORS and SRS were both also completed during the VCP sessions, in view of the therapists. Although this is desirable from a clinical perspective, to facilitate discussions where problems are identified, it is not optimal from a research perspective. As the therapist can see the scores, there may be an element of social desirability in participants' responses, giving higher scores than they otherwise would.

The gap between therapy and interview is also acknowledged as a limitation. However, it has been argued that interviewing participants following a delay can result in better data. It can have the benefit of allowing participants time and space to reflect on their experience, resulting in greater insight (Elliot, 2010), with a 2-year delay between therapy and interview being seen in previous research (Hansen et al., 2015).

From the participant's perspective, the foci of interest for the study (WA in the context of VCP) were bound up with other aspects of their therapy experience (including the intervention content and therapist attributes)—indeed, it may be difficult to meaningfully isolate WA in VCP from these broader contextual factors. Whilst this contextual integration has enriched the study, it may be considered a limitation in light of the original study aims.

Finally, as there was no direct comparison between face-to-face and VCP this study cannot determine whether the effect is comparable between the two mediums. Nonetheless, the evidence presented suggests the effects may be similar.

4.3 | Future research

Broadly, future research would benefit from further investigation in several areas: (1) given literature on face-to-face psychotherapy identifies different aspects of the WA as more or less important in facilitating change (Webb et al., 2011), it would be worthwhile investigating this within VCP, particularly in light of participants' apparent focus on *bond*; (2) as this study converges with previous literature (Norwood et al., 2018; Simpson & Reid, 2014) in suggesting potentially important differences between the impact of client- versus therapist-reported WA, capturing clinicians' views of the WA in VCP and examining its importance to outcome seems important; (3) given the therapist level impact seen in this study, further investigation into therapist level effects in VCP are needed; and (4) recognising that the sample in this study was largely made up of younger females, VCP research would benefit from studies recruiting a more representative sample (including older people and males).

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from CLAHRC EM. Restrictions apply to the availability of these data, which were used under license for this study. Data are available with the permission of CLAHRC EM.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

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